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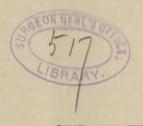
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THE CLINICAL APPLICATION OF

INGLUVIN

By JOHN V. SHOEMAKER, A. M., M. D.

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The Clinical Application of Ingluvin.

BY JOHN V. SHOEMAKER, A. M., M. D.

Ingluvin is the name given to a preparation made from the gizzard of the domestic fowl. The product occurs in the form of a soft powder of a yellowish-gray color and a faint odor. It is almost devoid of taste. A slightly bitter after-taste is left, but this soon disappears. Ingluvin is insoluble in water and the usual menstrua. It can be administered stirred into water or milk, or, if no therapeutical objections exist, into tea, coffee, chocolate, wine, etc. Its feeble taste is easily disguised. Ingluvin is put up by its manufacturers (Messrs. William R. Warner & Co., of Philadelphia) in 5 grain tablets. The dose of ingluvin is from 5 to 20 grains. Spread upon bread and butter, it may be conveniently administered to children. Ingluvin possesses the advantage of being compatible with alkalies.

As the gizzard contains no peptic glands, the undoubted efficacy of ingluvin cannot depend upon the presence of a digestive ferment analogous to pepsin. It has been ascertained that its virtues reside in a peculiar bitter principle which enters into its composition. It is prescribed in the same manner, doses, and combinations as pepsin.

Ingluvin stands in the same relation to the digestive processes of the fowl that pepsin does to those of the higher animals. A practical recognition of the virtues of the gizzard of the fowl has existed among the Chinese for centuries. Chinese cooks are much addicted to the use of the gizzards of chickens and ducks in nearly all their made dishes. For the relief of chronic indigestion a favorite prescription of their physicians is to cut up and digest chicken gizzards in hot water until they are reduced to a pulp and to add some spices. A table-spoonful or two of the resulting paste is taken at each meal. This practice passed from China to other Asiatic countries, and was here and there adopted by peoples bordering on the Mediterranean. It is only recently, however, that the value of the gizzard of the fowl has been appreciated in Europe and America. A powerful nitrogenous radical was, about 1850, discovered in the gizzard. Experiments showed it to possess many of the properties of pepsin.

As poultry are for the most part graminivorous, and unprovided with any apparatus for crushing the large grain and seed which they swallow, this labor must be performed in the gizzard. This structure seems to have both a mechanical and chemical action. Its interior is

lined by a dense, hard membrane, surrounded by powerful muscular fibres. Along with the food is always a small quantity of sand and gravel. The organ appears to act by bruising and cracking the food, rather than, as commonly believed, by trituration. The muscular action is accompanied by an exudation from the walls of the crop, of a strong, organic fluid, of which ingluvin is the chief constituent. The hull of the grain, or the shell of the seed, is broken by the pressure of the walls and the gravel, and their interior is exposed to the chemical action of the ingluvin. By the time it reaches the stomach it is ready for the gastric juices. From this point digestion proceeds as in the higher animals. As the gallinaceæ have very small salivary glands, and as the fluids secreted by these resemble the secretion of the parotid rather than that of the sublingual and submaxillary glands of the human being, it would seem that ingluvin played a double part, exercising the functions of the ptyalin of the saliva as well as the pepsin of the stomach.

It is now about eighteen years since ingluvin was introduced to the notice of the medical profession. In that period of time it has been extensively employed both at home and abroad. The preparation is of special benefit in the relief of sick stomach. On account of the entire absence of irritant properties, ingluvin may be given with success when vomiting depends upon organic affection of the stomach, as in acute and chronic gastric catarrh and in gastric ulcer. Nausea, due to disease of other abdominal or pelvic viscera, as the liver, kidneys, uterus, and ovaries, is likewise relieved by the administration of this remedy. It allays the gastric irritability which accompanies tabes mesenterica and marasmus.

Vomiting produced by over-indulgence in liquor has been subdued by its powers. It has been found of advantage in cases of seasickness, and in the relief of the gastric irritability of bottle-fed babes. Its peculiar province, however, is alleviation of the vomiting of pregnancy, in which it approaches the character of a specific. As every one knows, this difficulty is frequently very intractable, and one approved remedy after another may be used without avail. To those who have witnessed repeated failures of medication, ingluvin can be recommended as one of the most efficient remedies which we possess for the relief of this distressing symptom. The late Prof. Ellerslie Wallace, of Jefferson Medical College, was one of the first to make clinical experiments with ingluvin. He reported decided advantage from the use of the powder in cases of vomiting of pregnancy, and sick stomach caused by chronic inflammation of the womb. He found it of service, moreover, in a case of obstinate vomiting due to irreducible hernia.

Ingluvin is likewise beneficial in dyspepsia when produced by functional inactivity. It is able to promptly check the diarrhea which is caused by indigestion. By reason of its influence upon the stomach and bowels, ingluvin is capable of marked service in cases of cholera infantum and cholera morbus.

From the preceding account it will be seen that ingluvin possesses an exceedingly important sphere of usefulness. Disorders of the alimentary canal exert such a widespread influence, they are so often linked with profound general disturbances, and they are so distressing in themselves, that any remedy which demonstrates its efficacy in regard to these affections should be warmly welcomed. It is for this reason that I report the following series of cases in which I derived advantage from the use of ingluvin. I sometimes administered the powder, and at other times the tablets, without perceiving any difference in the good results obtained.

Ten grains I found generally a sufficient dose. In some instances 20 grains were required, while in the milder forms of indigestion a 5-grain tablet, after each meal, accomplished the desired purpose. To infants I gave the remedy in doses of 1 or 2 grains. The cases, of which brief histories will now be given, have been seen by the writer at various times within the past few years:—

A woman, 23 years of age, had suffered for twenty-four hours with intense abdominal pain, frequent vomiting, and profuse watery discharges from the bowels. There was intense thirst and the abdomen was retracted. The patient was weak, but extremely restless. The pulse was small and the CHOLERA MORBUS. skin cold. Small doses (5 grains) of ingluvin were at first given at half-hourly intervals. By that time the nausea was less distressing. Two doses were then given at hourly intervals. Improvement continuing, the remedy was suspended until the second and then the third hour. She gained rapidly; upon the second day not much gastric irritability remained; the patient was able to take some nourishment, the diarrhoea lessened, and the patient became convalescent.

A woman, aged 55 years, had suffered for twenty hours with looseness of the bowels. The discharges had kept increasing in number and fluidity. Her stomach was extremely irritable. She vomited frequently until the contents were entirely expelled, when painful retching followed. She felt cold. The pulse was weak. There was considerable abdominal pain, and severe cramps in both lower limbs. The patient was very much debilitated. The treatment was essentially the same as in the case immediately preceding, and was equally successful.

Another patient was a woman, 35 years of age. I found her lying upon the floor with her thighs flexed upon the abdomen, suffering excruciating pain. The bowels had been loose for two days, and for the same period she had had a great deal of vomiting. On account of the agonizing pain, I premised the treatment by a hypodermic injection of $\frac{1}{8}$ grain of sulphate of morphine and $\frac{1}{80}$ grain of atropine. After this had relieved the cramps, ingluvin was administered and a speedy recovery ensued.

A man, 25 years of age, came home one day tired and hungry, ate heartily of supper, and in the evening partook of some watermelon. At r A. M. he was awakened with sick stomach and diarrhea. He vomited, retched and purged. The alvine evacuations, at first fæcal, became liquid. There was abdominal pain, his skin was cold, he was thirsty, his face wore an expression of anxiety, and his pulse was weak. The treatment was by means of ingluvin, and was completely successful.

The following cases of diarrhœa in young children were successfully treated by means of proportioned doses of ingluvin, administered every one, two, or three hours, according to the severity of the disease. The action of the remedy, of course, was assisted by hygienic and dietetic regulations:—

A buby, 6 weeks old, had suffered from loose bowels for two days. The passages were green and slimy. The infant seemed to suffer from colic, though its abdomen was not swollen. It was rest-

less, cried, and did not sleep as long or as soundly as usual.

INFANTILE DIARRHŒA.

A baby, 7 weeks old, had for several days had spasms of colic, together with vomiting and diarrhœa. The bowels were opened every half

hour, the discharges being green and slimy. There was no fever.

A child, 6 months old, had been ailing for a week. Its bowels had been loose and watery. During the last two days the discharges had become more frequent. The baby vomited occasionally, was restless, fretful, slept but little, and cried a great deal. The child had failed sadly in flesh and strength. Its face was very pale, with dark circles around the eyes. The baby improved under the treatment, and at the end of a week was almost as well as before the attack. At that time, the medicine having been abandoned, some improper food was given to the child. The result was a second attack, more severe than the first. A return to the ingluvin powders, however, brought about eventual recovery.

A baby, 3 months old, had been ill for three days. It had frequent loose discharges from the bowels. After the diarrhea had

continued for two days, the baby began to vomit. The passages were watery. There was no fever or pain. The baby was nourished partly at the breast and partly on the bottle, the milk being from one cow, diluted and sweetened. The bottle was always kept clean. The infant had lost flesh, was pale, its eyes were sunken and encircled by dark rings. At about this time it began to suffer pain and cried a great deal. The strength was very much reduced, but the continued employment of ingluvin brought about a gradual recovery.

A child, 13 months of age, had had vomiting and diarrhea for two or three days. There had been no fever or evidence of pain, but the child was weak and listless, taking no interest in his usual amusements. Although the child had not been weaned, he had been allowed to eat of whatever was upon the table. He had become peevish. He was pale, but not emaciated. A regulated diet and ingluvin restored the little patient to health.

A bottle-fed baby, 3 months old, had suffered for twenty-four hours with vomiting and diarrhea. The numerous and abundant passages were thin and watery in character. Recovery was prompt under the treatment which has been described.

A girl, 16 months old, had had looseness of the bowels for about a month, ever since the first molar teeth began to emerge. There had been no habitual vomiting, but the child had taken very little nourishment. The passages have averaged six or eight daily. At times there had been temporary improvement, but relapses had always occurred. The child lay much of the time half asleep and had a ghastly appearance. There had been no convulsions. The patient was extremely emaciated. She, nevertheless, made a good recovery.

A girl, 23 months old, had seemed listless for two days, when she was attacked by pain in the bowels and diarrhœa. There was also vomiting. Improvement was rapid under the use of ingluvin.

A boy, aged 18 months, had suffered from diarrhea for several days. The stomach was but slightly deranged. The child was listless, weak and pale. Treatment and results were the same as in the cases already detailed.

A man, 37 years of age, had been seized, without known cause, two days previously, with serious diarrhoea. He had very abundant discharges, and was so weakened that he had to take to his bed. The stomach was very rebellious to the simplest kind of food. Every attempt to take nourishment provoked vomiting. Ingluvin allayed the nausea. The appetite returned, and the diarrhoea ceased.

A girl, aged 18 years, had been seized, four days previously, with pains in the abdomen, and diarrhoa, passing

bilious stools. She also suffered much from nausea. Rapid relief of all the symptoms attended the use of ingluvin.

A man, aged 25 years, had suffered for two weeks from diarrhæa, having from twelve to twenty loose, watery passages every day. He had some, but not much, abdominal pain, and was greatly debilitated by the constant drain. There was no indication of typhoid fever, and, in fact, improvement was rapid under the influence of ingluvin.

A woman, 50 years of age, had suffered from sickness of the stomach and diarrhoea for two days. Her tongue was flabby and tremulous. She was much enfeebled. The same treatment was rewarded with success.

A 30-year old woman had had abdominal pain, flatulence, and frequent watery stools for three days. Treatment by ingluvin was completely successful.

Another case, relieved by an exhibition of the same remedy, was that of a man, 25 years of age, who had for five days had nausea, vomiting, and profuse diarrhea. The tongue was coated with a yellowish fur, he loathed the thought of food, and his strength was greatly prostrated.

A vigorous man, 25 years of age, had had frequent loose stools for three weeks. He had but little abdominal pain. His strength was very much reduced. He was cured by means of ingluvin, given in 10grain doses every third hour.

A woman, aged 28 years, had suffered for four days from abdominal pain, nausea and diarrhoea. Her sleep had been much disturbed and her strength lost. The passages were fluid and contained considerable mucus. Treatment was the same as in the preceding case. The result was excellent.

A woman, aged 25 years, was suddenly seized with diarrhea, and during the night had a dozen or more fluid passages. They were not accompanied by much pain, but had made the patient feel very weak and faint. Ingluvin was administered with entire success.

A woman, 50 years of age, who had long been subject to attacks of bowel trouble, had been seized, three days previously, with sickness of the stomach and diarrhea. The alvine evacuations were frequent

DYSENTERIC DIARRHŒA. and abundant. They contained blood and a good deal of mucus. She suffered much from tenesmus. She had rapidly lost strength. The treatment by means of ingluvin was completely successful. Appetite returned, digestion improved, nausea

ceased, the bowels were checked, and the usual strength was regained.

A man, 40 years of age, after exposure to cold, was attacked by flatulence and colic. The pain was severe enough to keep him awake

during most of the night. The symptoms continued, though with diminished intensity, for two days, when, by my advice, he began taking ingluvin. The flatulence was soon lessened and the pain disappeared.

INDICESTION.

A man, 30 years of age, had, for two or three days, suffered from sharp pain in the

epigastrium. The pain had been almost constant, and was somewhat aggravated upon taking a long breath. It did not shoot through the sides or into the back. He had lost his appetite and had nausea, but no vomiting. The tongue was coated, abdomen tympanitic, bowels loose. There was no headache, water-brash, chills or fever. Until this attack he had enjoyed excellent health. The symptoms were soon relieved by ingluvin.

A man, 44 years of age, had, during two years past, suffered much from sickness of the stomach and flatulence. His appetite was very poor; he was thin and had an anxious expression of countenance. He

DYSPEPSIA.

likewise complained of irregular action of the kidneys. At times the quantity of urine would be very small, and again it would be inordinately large. Withal, the patient was somewhat hypochondriacal. The urine was repeatedly examined,

but never contained albumen, sugar or casts. This patient was decidedly benefited by the administration of ingluvin. Appetite and digestion improved, his spirits became more cheerful, and the functional disorder of the kidneys vanished.

A man, aged 50 years, had, for several years, been subject to heartburn, flatulence, eructation, nausea, and occasional attacks of vomiting. Ingluvin afforded him much relief.

A woman, 47 years of age, had, for two or three months, had trouble after partaking of her meals. Her appetite was not good. Her symptoms were flatulence, heart-burn, pain over the pit of the stomach, and nausea. The treatment was the same as in the preceding case, and the result was very satisfactory.

Mrs. N., aged 45 years, had, for three months, suffered from symptoms of indigestion, accompanied by almost constant looseness of the bowels. She had lost flesh and strength, was short of breath,

WITH REFLEX SYMPTOMS.

had occasional attacks of palpitation, a persistent headache and vertigo. Ingluvin strengthened digestion and regulated the bowels. With this improvement the headache and vertigo disappeared.

A man of robust build, formerly very strong and vigorous, 30 years of age, had a good appetite, but soon after a meal began to be troubled with flatulence, eructations and borborygmi. Other symptoms of which he complained were pain in the head and back, vertigo, pain in the breast and dry cough. All these symptoms, including the cough, promptly vanished when the digestive difficulties were removed by means of ingluvin.

A woman, 29 years of age, was a great sufferer from indigestion. Her appetite was poor; she had great nausea after eating, and occasionally she vomited. She was subject to a sense of weight in the

DYSPEPSIA FROM UTER: NE DISEASE.

epigastrium; she had flatulence, waterbrash, and sometimes attacks of colic. The digestive disturbances seemed to be due to a retroflexed womb. Of the measures taken to straighten the uterus I have no cause to speak, but I am sure

that ingluvin ameliorated very considerably the digestive difficulty. The uterine condition was improved, and at the end of three months the patient was in better health than she had been for years. If indigestion or any other reflex disturbance has been excited by a distant organic affection, it is idle to expect relief until the original disease has been cured or relieved. It is proper, however, that we should seek to mitigate the concurrent symptoms by every means in our power. It was with this view that ingluvin was administered in this case.

A woman, 35 years of age, had suffered much from flatulence for two years. The accumulation of gas gave rise to frequent and distressing attacks of palpitation of the heart. There were no cardiac

FLATULENT DYSPEPSIA. or renal lesions. The patient was of healthy appearance, though her skin had rather a yellowish cast. She had never been jaundiced. This patient was notably relieved by the administration of ingluvin.

A woman, aged 42 years, had, for some months, suffered from extreme flatulence and palpitation of the heart. She did not sleep well, and had become melancholy. Marked improvement followed the use of ingluvin in 10-grain doses after each meal.

A young girl, 18 years of age, had suffered, especially during the preceding two weeks, with severe throbbing headache, which was almost constant. The pain was accompanied by nausea, but not vom-

NERVOUS DYSPEPSIA. iting. She also complained of pain at the pit of the stomach. Her appetite was fairly good, and bowels regular. She was not troubled with flatulence. She had no uterine or ovarian difficulty. The pain sometimes shifted to the left side and

back. The heart and lungs were normal. She was of an exceedingly

nervous temperament, and the symptoms had directly followed a nervous shock. The girl feared that she was becoming consumptive. She was reassured upon this point and ingluvin was given. Within a few weeks all her troublesome symptoms had completely disappeared, and she had become cheerful and hopeful in spirit.

I have found ingluvin of service in a number of cases where pain was a prominent feature, and out of all proportion to the digestive disturbances upon which it depended.

CASTRALCIA.

A young woman, 22 years of age, had been subject for eight or nine years to pain in the epigastrium. The pain was of a dull character, and there was no regularity in the attacks. No uterine disease was present. For two weeks the

patient had been suffering from symptoms of gastric indigestion. During this period the pain had been aggravated. Her appetite was good and bowels regular. The indigestion was relieved by the use of ingluvin, and coincidently the epigastric pain was notably lessened. At my suggestion she continued the remedy, and reported, from time to time, that the pain was decidedly less severe and also less constant. In fact, when she was careful in regard to her diet, her stomach gave her scarcely any trouble.

A man, 30 years of age, had suffered from pain in the stomach for several years. For two weeks previous the pain had been unusually severe. His appetite was good, and the pain was not increased by the presence of food in the stomach. The patient seldom or never vomited. His bowels were habitually constipated. This case was also decidedly benefited by the use of ingluvin.

A woman, 25 years of age, felt as well as usual one night when she went to bed. In the morning following she had no appetite for breakfast, and about 10 A. M. was attacked by a severe, cramping pain

COLIC.

in the abdomen. At T.P. M. I found that the pain had been almost continuous ever since it had made its appearance. She had also vomited several times. There was no diarrhea. The patient had eaten nothing of a specially ind gest-

ible character. She attributed her attack to sleeping immediately in front of an open window. The weather had changed during the night, becoming rainy and damp.

A man, aged 25 years, who had been troubled for some time with mild dyspeptic symptoms, had, for about a week, been worse. He had lost his appetite, which formerly had been good. He became afflicted with nausea, especially in the morning. He had a sense of weight in the stomach, a dirty tongue, a bad taste in the mouth, and eructations

of food. He vomited, especially in the morning, a quantity of thick mucus from the stomach. He was disposed to be either chilly or feverish, had headache and a constant thirst. There was no enlarge-

ment of the liver and no pain over the liver or lower portions of the abdomen on pressure.

CASTRIC CATARRH. Pressure over the stomach, however, caused pain.

He had lost color, flesh and weight, and had become quite weak. The bowels were obsti-

nately constipated. After free alvine evacuations had been obtained, this patient was placed upon ingluvin with the most gratifying results. The symptoms of faulty digestion disappeared, his appetite returned, and in the course of a week he was more free from indigestion than he had been for a long time.

A man, 28 years of age, had been for some weeks greatly troubled with indigestion. His appetite was poor. Whatever he ate caused a sensation of weight in the epigastrium, sometimes pain in the lower abdominal regions, nausea, and very often vomiting. Of late he had vomited nearly everything taken. He also suffered much from flatulence.

CASTRIC CATARRH. This man likewise improved under the use of

A man, 28 years of age, who, for two or three years, had been troubled with dyspeptic symptoms, had a subacute attack of gastroenteritis. There was constant chilliness, pain in the abdomen, nausea,

ingluvin.

vomiting and diarrhoea. He vomited as long as anything remained in the stomach; bile was then ejected, and, finally, nothing could be brought up, but the retching was painful. The diarrhoea was profuse and watery. The patient was pale

and weak. Ingluvin alleviated the nausea. A little nourishment could, after a while, be taken; the diarrhoa ceased, strength returned, and in a few days the patient was convalescent.

A woman, 55 years of age, after a dietetic indiscretion, was suddenly seized with severe cramping pains in the abdomen, and vomiting followed by retching. She rolled and tossed in pain, retched violently, had a flushed face and frightened look. The abdomen was not sensitive on pressure. A hypodermic injection of morphine and atropine was given for the purpose of speedily relieving the extreme pain. As the bowels had been freely loosened and nausea remained, she was placed upon ro-grain doses of ingluvin, four times a day. The gastric intolerance was allayed, the bowels ceased to operate, and upon the second day of treatment the appetite returned. The patient experienced no further difficulty.

Mrs. A., 23 years of age, complained that for three months she had suffered from a gnawing pain in the stomach and in the back, coming on soon after a meal and continuing for two or three hours.

She had come to dread partaking of food. She suffered, moreover, from frequent attacks of vomiting. The epigastrium was tender upon pressure. She had early noticed that the pain was aggravated by certain kinds of food, such as con-

diments, highly seasoned, or hot, indigestible food. After vomiting, the pain was generally, for a time, relieved. Upon several occasions lately she had noticed with alarm that blood was mixed with the matter which she vomited. The age of the patient, the absence of a tumor, and the symptoms pointed to the presence of a gastric ulcer. The patient was pale and weak. Ingluvin allayed both the pain and nausea, and materially assisted the other measures taken with a view to producing cicatrization.

A man, aged 50 years, had been drinking freely, principally of beer, and eating little, for about a week. One morning he wound up his spree with a few glasses of whisky. In the afternoon, about 4

VOMITING CAUSED BY ALCOHOLISM.

CASTRIC ULCER.

o'clock, he became sick at the stomach, and spent the evening vomiting and retching. He was also exceedingly restless, and could not sit still. His tongue was clean, but tremulous. There was no diarrhœa. Ten grains of ingluvin were ordered

given to this patient after every attack of vomiting. After two powders had been taken the stomach became more quiet, and thenceforward he needed but two more doses during the night. On the next day he was weak and remained in bed. He had no appetite, but did not vomit. He was able to retain a small amount of simple nourishment. A dose of ingluvin was administered morning, noon, and night. On the third day he declared himself well and went out to business. The remedy certainly produced a very good effect in this case.

Mrs. L., 22 years of age, was attacked with morning-sickness almost from the very beginning of her pregnancy. She vomited almost everything of which she partook. For two weeks the stomach

VOMITING OF PREGNANCY. had been growing more intolerant and she had been losing strength. When first visited she could retain nothing, and when her stomach was emptied she retched violently, which had exhausted her strength and left the abdomen very

tender. A powder containing 10 grains of ingluvin was ordered to be given after each succeeding act of retching. The effect was excellent. The patient vomited but twice during the next twenty-four hours. On

the following day she was able to retain plain food, and after this time had not much difficulty. At times she experienced nausea, but was always relieved by resorting to ingluvin.

A young woman, Mrs. C., aged 19 years, two months pregnant, had suffered for two weeks from excessive sickness of the stomach. She vomited or retched all the time, and had been able to retain scarcely any nourishment for nearly a week. She had been sitting up until the preceding day, when she was compelled to take to her bed from exhaustion. I found her very weak. Her pulse was rapid and thready. The use of ingluvin was in this severe case attended with the happiest results. Retching became less frequent, the stomach became a little stronger, nutrient food was cautiously given, and by the end of a week she had but little trouble. A resumption of the remedy was henceforth able to avert the distressing symptoms.

Mrs. M., aged 25 years, was three months advanced in her second pregnancy. During most of this time she had suffered from morning-sickness. She experienced nausea every morning, though she did not always vomit. She also had some dyspeptic symptoms which had been previously unknown to her, as flatulence and colic. The exhibition of ingluvin was perfectly successful in alleviating the nausea, and she had very little trouble henceforward from this source.

Mrs. S., aged 23 years, three months advanced in her first pregnancy, began to complain of morning-sickness at about the end of the first month. Sickness came on in the morning, a short time after breakfast. She was compelled to lie down for several hours every day. She had not been much debilitated, but had taken a great many different remedies without obtaining much benefit. Ingluvin afforded her almost instant relief. Her appetite improved, her digestion became more active, she was able to take a sufficiency of nutritious food, and the sickness did not recur.

Mrs. G., 28 years of age, in the third month of her fourth pregnancy, complained of nausea and vomiting, by which she had been troubled for five or six weeks. This case was a mild one and yielded readily to treatment.

Mrs. B., aged 25 years, in the fourth month of her first pregnancy, stated that she had been afflicted for the preceding two months with nausea and vomiting, coming on soon after breakfast. The same treatment was attended by the same results.

Other Therapeutic Notes on Ingluvin.

"A New Remedy called Ingluvin."

BY A. F. SHELLY, M. D.

This is obtained from the gizzard of the domestic fowl (chicken), and is a Specific for Vomiting in Pregnancy. I have used this remedy extensively in my practice, and it has never failed. It is also the most powerful and reliable remedy for the Cure of Indigestion, Dyspepsia and Sick Stomach, caused from debility of that organ. It is useful in all cases where Pepsins and Pancreatins are used, but with more certainty of its good results, for it puts all those preparations, in my experience, in the background.

In complicated affections of the Stomach, such as Inflammation, Gastralgia, Pyrosis, etc., it may be combined with Subnitrate of Bismuth and opiates; in Diarrhea and Cholera Infantum, with astringents, both vegetable and mineral. I have given the article to several prominent physicians, who have used it with the happiest results, among whom I may mention Prof. E. Wallace, of the Jefferson Medical College; he gives me the results of seventeen cases as follows:—

In VOMITING OF PREGNANCY, OUT OF NINE CASES HE CURED SIX AND PALLIATED TWO, and in one case the remedy was not taken according to directions, and therefore had no effect.

He used it in seven cases of Sick Stomach, caused by chronic inflammation of the uterus; cured five and two remained doubtful. He also used it in a case of very obstinate Sick Stomach, caused by irreducible hernia, and says this was the only remedy that gave any relief.

We, who have had some experience, all know that Vomiting of Pregnancy is a sore affliction, and in some cases almost unendurable, nay, indeed, putting life in jeopardy; but in "INGLUVIN" we have a remedy which will prove to be a great blessing to mothers, who, as yet, think vomiting must be endured as a natural consequence.

If I am able, by this publication, to induce the medical fraternity to make use of the remedy, I am positive that a great boon will be conferred upon a class of sufferers who claim our sympathy.

The dose is from five to ten grains, hardly ever more than five, except in obstinate cases. For children, from one to five grains. My mode of administering it is in a spoonful of water or tea, or it may be strewn on a piece of bread and covered with a little butter; it is,

however, nearly tasteless. In Dyspepsia and in Vomiting in Pregnancy, I direct it to be taken half an hour or so before each meal. In other affections of the stomach and bowels, every two to four hours. I give it uncombined, except in complicated cases, as heretobefore mentioned.

—From the Medical and Surgical Reporter, February 3, 1877.

"Ingluvin."—This is a new remedy prepared by Warner & Co., from the Ventriculus Callosus Gallinaceus. It is said to be superior to Pepsin as a remedy for feeble, painful and imperfect digestion, and may be prescribed in the same manner, doses and combinations. In our second volume for 1878, at page 207, we quoted from an article in the Revue des Deux Mondes, some remarks by Mons. Alfred Ebelot, on the employment of "ostrich pepsin" in the Argentine Republic, and we learn from the Pharmaceutical Journal, of April 13, 1879, that ostrich pepsin is really prescribed by medical men in the Argentine Republic, and is known by the public as "pepsina nostra." "Ingluvin" prepared from the gizzard of the chicken, is the nearest approach to ostrich pepsin that can be obtained in Europe, we suppose; and we may add that we have given it with a satisfactory result. It is supplied by Newbery & Sons.—London Med. Times and Gazette, May 10, 1879.

Atonic Dyspepsia and Chronic Indigestion.

11 RUE NEUVE DES CAPUCINES, PARIS, Feb. 20, 1879.

Editors North Carolina Medical Journal.

GENTLEMEN:-* I cannot conclude this letter without saying a word in regard to a medicine which has recently been introduced into France by our enterprising countrymen, Messrs. Wm. R. Warner & Co., of Philadelphia. Among other specimens of their exhibit at the recent Exposition, their agent in Paris very kindly sent me several bottles "Ingluvin"—prepared from the gizzard of the chicken—with the request that I would give it a fair trial in the treatment of gastric irregularity and disturbance. I am pleased to be able to chronicle the fact, that in three cases of pronounced atonic dyspepsia, and in one case of chronic indigestion, it has acted like a charm-promptly relieving all disagreeable symptoms and restoring the stomach to its proper functions. My patients, who had previously tried without benefit all ordinary forms of Pepsin, Bismuth, Cerium, Nux Vomica, etc., etc., are delighted with this new remedy, and assure me that they experienced benefit from the first dose. Hereafter I shall prescribe it liberally and with great confidence in its therapeutic value.

Assuring you of my abiding interest in the success of the *Journal*, Very truly and respectfully yours,

EDWARD WARREN (BEY), M. D., C. M.

Three Cases of Vomiting in Pregnancy Healed with Ingluvin.

The first vomiting case occurred in Mrs. B—, age 24, about 4 months pregnant. She came to me suffering from nausea and vomiting, which had continued for two months. The vomiting did not seem to be worse in the morning, but continued nearly all day; it was increased by the sight of food, and she vomited regularly after every meal. She was looking exceedingly pale and thin, and had evidently lost a considerable amount of flesh. As at that time I knew nothing of "Ingluvin," I began with 2-grain doses of Oxalate of Cerium, which I continued for a week, three times a day, without the slightest effect. I next gave Bismuth with dilute Hydrocyanic Acid, but with the same result. My patient was getting anxious, and fearing lest she would leave me, I was induced to try "Ingluvin," one drachm of which was put into an ounce bottle with an equal quantity of dilute Hydrochloric Acid, and given three times a day. I was astonished to find, when she came two days after, that her vomiting had ceased. The medicine was continued for a few days to avoid a relapse.

The other two cases occurred in young girls, aged 18 and 19 respectively. The vomiting in both cases was troublesome. In these cases I did not try Oxalate of Cerium, but flew at once to "Ingluvin," which I looked upon as a wonderful drug. The "Ingluvin" was given in powder in 10-grain doses, morning and evening. After taking four powders, the vomiting in each case stopped, and has not returned. I consider "Ingluvin" just as much a specific for Vomiting in Pregnancy, as Quinine for Ague, or Colchicum for Gout. Medical men will never regret using "Ingluvin."

CHARLES LOW, M. R. C. S. E., etc.,

241 New Cross Road, London, 16th May, 1880.

Dyspepsia Accompanied by Vomiting.

CAMPBELL COTTAGE, HOLLOWAY ROAD, 5th May, 1880.

I have much pleasure in bearing testimony to the remedial effects of the preparation named "Ingluvin," supplied me by Messrs. Newbery & Sons, in several cases of dyspepsia, accompanied by vomiting. I have seen it particularly efficacious in the troublesome vomiting produced by pregnancy. The form in which I have administered it is that of 5 to 10 grains in Infus. Aurantii, with a little mucilage, every 3, 4 or 6 hours, according to circumstances.

EDWARD COTTEW, L. R. C., P. Ed., L. S. A., London.

Dyspepsia and Gastralgia.

104 WILBERFORCE ROAD, FINSBURY PARK, LONDON, N., May 18, 1880.

Gentlemen:—I have tried in two cases your "Ingluvin;" in both (adults suffering from Dyspepsia and Gastralgia) with great success. The doses I gave them, five grains three times daily after meals, seemed to remove all the symptoms after a fortnight.

I remain, gentlemen, yours obediently,

WALTER ROCHFORT, M. D.

Vomiting in Pregnancy and Dyspepsia.

MESSRS. NEWBERY & SONS.

I have used Messrs. Warner & Co's "Ingluvin" with great success in several cases of Dyspepsia and Vomiting in Pregnancy. In one case of the latter which I was attending a few weeks back, "Ingluvin" speedily put a stop to the vomiting, which was of a very distressing nature, when other remedies had failed.

ROBERT ELLITHERON, M. R. C. S.

Lancaster House, Peckham Rye, S. E., April 30, 1880.

As a Remedy in Dysentery, Cholera Infantum, etc. Messrs. Warner & Co.

"Allow me to say that your preparation known as 'Ingluvin' is a reliable remedy in irritability of the stomach. Especially in infants suffering with Cholera Infantum, or in nausea attending Dysentery, I may say it is a specific compared to the defunct Pepsin preparation.

"Yours respectfully,

"T. R. HORNBLOWER, PH., M. D.

"Jersey City, N. J., April 12, 1879."

"Sirs:—As requested by you I have put the sample of 'Ingluvin' you left at my office to a very severe test. I was summoned to an unusually severe case of vomiting, the result of severe uterine trouble of long standing. I gave a 5-grain powder of 'Ingluvin' (as per sample) immediately, and left two more powders. The first powder acted like a charm, causing the vomiting to cease, and in so far as to check all nausea.

"Feeling grateful that the profession has at last received, as it were, a specific for vomiting in severe as well as mild cases, I remain "Very respectfully,

"C. H. WILSON, M. D.,

[&]quot;78 Taylor Street Brooklyn, July 9, 1877."

A Stubborn Case of Indigestion.

Union, Iowa, August 14, 1880.

MESSRS. WM. R. WARNER & Co.

GENTLEMEN:—"The 'Ingluvin' was received last Thursday evening. Thanks for promptness. It is the very best preparation for Indigestion and Sick Stomach that I ever used. It is performing wonders in a case I had in hand which had stubbornly resisted all other remedies. I will report the case in full ere long. Send me 3 ounces more in wood boxes, per mail.

"F. W. OLLIVER, M. D."

Vomiting in Pregnancy and Dyspepsia.

Messrs. Newbery & Sons.

I have used Messrs. Warner & Co's "Ingluvin" with great success in several cases of Dyspepsia and Vomiting in Pregnancy. In one case of the latter which I was attending a few weeks back, "Ingluvin" speedly put a stop to the vomiting, which was of a very distressing nature, when other remedies had failed.

ROBERT CLITHEROW, M. R. C. S.

Lancaster House, Peckham Rye, S. E., London, April 30, 1880.

Marasmus.

Eldon Square, Newcastle on Tyne, England, Oct. 31, 1880. Messrs. Newbery & Sons.

DEAR SIRS:—Will you have the kindness to inform me if you have an agent in this town for "Warner's Ingluvin," as I shall most likely prescribe it from time to time in order to give it a more extended trial? I was much gratified with its action in a distressing case of Tabeo-mesenteric disease. I had no difficulty in bringing the pain under subjection by opiates, etc., but in the vomiting, emaciation and disordered condition of the bowels, there was no improvement. Finding a sample box of "Ingluvin" upon my consulting table (and for which accept my thanks, for I firmly believe that the powder saved my little patient's life), I gave the mother the box containing a dozen powders, requesting her to divide one into three, and administer one twice daily. The pain disappeared, the vomiting ceased, flesh was rapidly put on and in the short space of a fortnight, the patient, previously under treatment for six weeks, was convalescent and completely recovered—aged $2\frac{1}{2}$ years.

Believe me, yours faithfully, ANTHONY BELL, L. R. C. P., Ed. M. R. C. S.

Late Senior Assist. to the Newcastle Infirmary, and Surgeon to the Hospital for Diseases of the Skin.

Dyspepsia in Various Forms.

I have used the "Ingluvin" prepared by W. R. Warner & Co., both at the hospital and in private practice, for the various forms of Dyspepsia, and it has proven highly satisfactory on every occasion.

REGINALD LOUIS VEILEY, F. R. C. P.

Physician to the Hospital for Diseases of the Heart and Paralysis. 34 Soho Square, W., London.

Gower House, 88 Gower Street, W. E., 1st June, 1880.

Several Obstinate Cases of Vomiting in Pregnancy.

A most obstinate case of pregnancy came under my care yesterday. The patient, a young married lady, had been vomiting continuously for two weeks, and during that time a number of remedies had been administered without benefit.

Upon taking charge of the case, I immediately prescribed—

Ingluvin 3i.
Bismuth Subnit: 3ss.

m
Div. in Chart. xii.
Sig.—One every 3 hours.

I had the pleasure of witnessing a complete control of the vomiting after the administration of the fifth powder.

I consider this a case of great interest, as the symptoms were very alarming, the vomiting produced great emaciation.

Respectfully yours, etc., GEO. F. MEESER.

1512 S. 13th St., Philadelphia, June 12, 1879.

Newark, Ohio, July 3, 1885.

MESSRS. WM. R. WARNER & Co., Philadelphia, Pa.

Gentlemen:—I do not presume you are in need of any commendation from me in regard to your preparation, "Ingluvin," but it having proved to be such a valuable medicine in my practice during the eight or nine years in which I have constantly used it, I deem it a pleasure, as a duty, to pay you the highest compliment of which I am capable, in attestation of its very superior merits. In my hands it has been a specific in the vomiting of pregnancy. I do not remember a single instance in which it failed of the desired effect. In the cases of ovarian, renal, hepatic and cerebral difficulties where there had been more or less gastric irritability, the results far exceeded my expectation. I often give it with Quinia, where I fear that medicine will not be retained on the stomach. I carry "Ingluvin" in my case and would not be without it, as I regard it superior to all other preparations in the treatment of the diseases for which it is recommended.

Respectfully, J. W. ALEXANDER, M. D.

A Superior Remedy in Vomiting of Pregnancy, Gastritis, etc.

GENTLEMEN:—About two years since I received from your representative, Mr. A. J. Shick, a sample of your preparation "Ingluvin." Have used it extensively in my practice and find it far superior to other remedies in Vomiting in Pregnancy, Dyspepsia, and in cases of Indigestion. Am convinced that no other remedy can be prescribed that will act with the promptness of "Ingluvin."

St. Louis, Mo.

WALDO BRIGGS, M. D.

As a Preventive of and Remedy in Sea-Sickness.

I was Surgeon on board the Red Star steamship Belgenland. I only went one voyage after getting this valuable article, having been for four years in that position, was getting tired, and resigned to settle on land at my profession. But during that voyage to and from Antwerp, I prescribed the "Ingluvin" to a great many patients who were sea-sick, and in no case was it without benefit, but in many cases it entirely relieved the sufferer after a few doses were taken. One case I will take the trouble to mention as a specimen of its workings. That of a German lady, about 35 years of age, who had crossed the Atlantic once before, was sick the entire passage and unable to go to the table a single time during the passage. I found her sea-sick as soon as we were at sea, in that miserable condition of nausea and entire loss of appetite; entirely without desire to go to the table, and feeling as though she could not sit there during the meal. I prepared some powders of 10 grs. each, with directions for one to be taken ten or fifteen minutes before meals in a little water. After taking the fourth powder she came to the table regularly during the entire voyage, without the loss of a single meal. Others I could name in which it acted promptly, among them was Mrs. Edward Brooks, of telegraph fame, that is, her husband is. Respectfully,

Wyoming, Del.

W. B. MELONEY, M. D.

[Translation.]

CITY OF RIO DE JANEIRO, Feb. 10, 1880.

Messis. Warner & Co.

DEAR SIRS:—Mr. Marvel has had the kindness to give me some boxes of your "Ingluvin." He told me it was very good for seasickness. I have used many remedies against seasickness, but still this is the best I ever used. I recommend it to every one who suffers from sea-sickness. Yours respectfully,

LUIZ FERREIRA DE SILVA SANTOS.

Miscellaneous Endorsements of Ingluvin.

ARCADIA, ILL., Sept. 29, 1880.

Messrs. W. R. WARNER & Co.

Have prescribed and dispensed altogether about twenty ounces of your "Ingluvin" in cases of Vomiting in Pregnancy, Cholera Infantum, Chronic Diarrhea and some varieties of Dyspepsia, and almost always with the happiest effects. It has almost entirely superseded the whole list of Pepsins from other sources in my hands. To the conscientious physician it is an indispensable remedy.

Respectfully yours, etc.,

JNO. W. CRAIG, M. D.

[TRANSLATION.]

ROME, ITALY, 29th Oct., 1880.

"Ingluvin," the pharmaceutic product from the manufactory of Messrs. Wm. R. Warner & Co., Philadelphia, U. S. A., has proved to be of great curative value in all diseases for which it is recommended, as also in chronic affections of the uterus. I have observed that it is a very good substitute for Pepsin. DR. CUOLE PASRUALI,

Director of the Royal Gynacological Coliseum.

Endorsements from Medical Journals.

HORATIO R. BIGELOW, M. D., in a communication to *Medical* and Surgical Reporter, October 16th, 1880, under the title "The Columbia Hospital for Women, etc." * * * * * * * * "In Dyspepsia, especially in that form of it which is attended with vomiting in pregnant women, Dr. Sowers has used with the greatest success ten-grain doses every two hours of Warner's 'Ingluvin.' The most severe cases seem to yield under its administration."

[From the Southern Medical Record, March, 1879.]

"Ingluvin."—Since the discovery and introduction of Pepsin into medical practice many years ago, its use has continued with variable results. Recently the reliable firm of Wm. R. Warner & Co., of Philadelphia, has discovered and prepared a preparation in the form of a powder, made from the *Ventriculus Callosus Gallinaceus* (the gizzard of the domestic fowl), which they denominate "Ingluvin," from *Ingluvies*, the craw.

Reports of its beneficial effects, from the highest authorities in the medical profession, and no less than Prof. Wallace, of "Jefferson Medical College," establish its importance as a remedy far beyond Pepsin and its preparations. It is presented in similar doses and combinations. It has a specific action in cases of sickness of pregnancy.



SUMBUL ROOT

(The Root of Ferula Sumbul).

Nat. Ord. Umbelliferæ.

Common names-Sumbul, Musk Root, Jatamansi.

Description—The plant that produces the sumbul root is an herbaceous perennial, with an erect milk-bearing stem, and is a native of Central Asia. The leaves are mostly radical, large, and alternately decompound, with the ultimate segments narrow and toothed. The upper stem leaves are reduced merely to the sheathing bases of the petioles. The flowers are small yellow and disposed in compound umbels.

For thirty years after Sumbul (musk-root) had become an article of medicine,

nothing was known concerning its botanical source.

In 1869, Kauffman, from plants collected in Russian Turkestan and grown in the Moscow Botanic Garden, established in it a new Euryangium, closely related to Ferula and differing chiefly in the broader vertæ. The plant has since, however, been ascribed to Ferula by Petournikoff, after an examination of the ripe fruit sent from Russia.

Euryangium Sumbul, or musk-root of commerce, reached our market through Russia. It occurs in pieces or sections, often branched and from half an inch to three

inches. It is brown externally.

Properties and Uses.—Sumbul is a stimulant and tonic to the nervous system; it has been recommended in gastric spasms, hysteria, delirium, diarrhœa, dysentery, leucorrhœa, chlorosis, asthma, chronic bronchitis, and other maladies, accompanied with an asthenic condition. In nervous diseases of a low depressing character, it has been found very useful, especially in the following combination which we prepare in pill form. These pills are prescribed by leading physicians. Don't fail to specify Warner & Co., to avoid substitutes and disappointment.

Dil. Sumbul Comp. (DR. GOODELL)

As specially prepared by WM. R. WARNER & CO.

R Ext. Sumbul, 1 gr. Asafœtida, 2 grs. Ferri Sulph. Exs. 1 gr. Ac. Arsenious, 1-40 gr.

"I use this pill for nervous and hysterical women who need building up." One or two pills three times a day. This pill is used with advantage in neurasthenic conditions in conjunction with occasional doses of Warner & Co.'s Bromo Soda, in cases of fatigue, loss of sleep, headache or indigestion.

Dil. Sumbul Aperient (DR. SHOEMAKER)

R Ext. Sumbul, I gr. Ext. Cascara Sag. ½ gr. Ext. Nuc. Vom. ½ gr. Asafœtida, I gr. Aloin, ¼ gr. Ext. Sumbul, ¼ gr.

This pill is a gentle stimulant, tonic, and aperient, in doses of one or two pills three times a day, occasional doses of Bromo Soda will greatly facilitate and bring quick relief.

WILLIAM R. WARNER & CO., Chemists,

1228 Market Street, Philadelphia.

Pil. Sumbul and Sumbul Comp. sent by mail on receipt of \$1.50.

CHALYBEATE.



(WARNER & CO.)

3 Grains. Dose-I to 4 Pills.

COMPOSITION

Ferri Sulph. Fe SO₄ Ferri Carb. Fe CO₃ Potass. Carb. K2 CO₃ Potass. Sulph. K2 SO₄

AS PREPARED BY

WM. R. WARNER & CO., Chemists,

PHILADELPHIA.

The above combination, which we have successfully and scientifically put in pill form, produces, when taken into the stomach, Carbonate of the Protoxide of Iron (Ferrous Carbonate) in a quickly assimilable condition.

This pill contributed to make the reputation of Niemeyer, and the following language, which speaks without comment, is taken from his TEXT BOOK ON THE PRAC-

TICE OF MEDICINE.

PROF. NIEMEYER says: "For more than twenty years I have exhibited this formula exclusively in Chlorosis, and have witnessed such brilliant results from them in a large number of cases that I have never needed an opportunity to experiment with other articles. At Madgeburg and Greifswald I often had to send my recipe for the pills to a great distance, my good fortune in the treatment of Chlorosis—to which, by-the-by, I owe the rapid growth of my practice—having given me great repute as the possessor of a sovereign remedy against that disease."

The dose of Pil. Chalybeate is from I to 4 at meal times and is recommended and successfully used in the treatment of Pulmonary Phthisis or Consumption, Anæmia, and Chlorosis, Caries and Scrofulous Abscesses, Chronic Discharges, Dyspepsia, Loss

of Appetite, etc.

Oil. Chalybeate Comp. (WARNER & CO.)

Nux Vomica is added as an ingredient to Pil. Chalybeate to increase the tonic effect when desired.

COMPOSITION OF EACH PILL.

Carb. Protoxide of Iron, gr. 21/2. Ext. Nuc. Vom. gr. 1/8. (Chalybeate Mass). Dose-I to 3 Pills.

Most advantageously employed in the treatment of Anæmia, Chlorosis, Phthisis, Scrofula, Loss of Appetite, etc. Per 100, 80 cts. The coating is very soluble and is colored a delicate pink.

Oil. Antiseptic Comp. (WARNER & CO.)

Each Pill contains

Salicylic Acid, 1 gr. Ext. Nux. Vom. gr. 1/8. Sulphite Soda, I gr. Conc't Pepsin, 1 gr. Powd. Capsicum, 1-10 gr.

Dose—I to 3 Pills.

Pil. Antiseptic Comp. is prescribed with great advantage in cases of Dyspepsia, Indigestion and malassimilation of food.

The physician may see that he is obtaining what he prescribes, by ordering in bottles containing 100 each, and specify Warner & Co. Per 100, 80 cts. Pills can be safely sent by mail on receipt of price—discount for quantities.

SPECIALLY PREPARED BY

WILLIAM R. WARNER & CO.,

Manufacturers of SOLUBLE COATED PILLS AS A SPECIALTY, 1228 MARKET STREET, PHILADELPHIA.

SUPERIOR TO PEPSIN IN ALL CASES.

A Powder :- Prescribed in the same manner, doses and combinations as Pepsin.



A POTENT AND RELIABLE REMEDY FOR THE CURE OF INDIGESTION, DYSPEPSIA, SICK STOMACH,

MARASMUS AND CHOLERA INFANTUM.

It is superior to the Pepsin preparations, since it acts with more certainty, and effects cures where they fail.

A Specific for

Prescribed by the most eminent Physicians. In doses of 10 to 20 grs.

PREPARED ONLY BY

WILLIAM R. WARNER & CO., Philadelphia.

From PROF. ROBERTS BARTHOLOW'S, M. A., M. D., LL. D. WORK ON

MATERIA MEDICA AND THERAPEUTICS.

NGLUVIN-This is a preparation from the gizzard of the Edition 1879 domestic chicken - ventriculus callosus gallinaceus. Dose, gr. v.-Aj.

Ingluvin has the remarkable property of arresting certain kinds of vomitingnotably the vomiting of pregnancy. It is a stomachic tonic, and relieves indigestion,

flatulence and dyspepsia.

The author's experience is confirmatory of the statements which have been put forth regarding the exceptional power of this agent to arrest the vomiting of pregnancy. It can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect. Under ordinary circumstances, and when the object of its administration is to promote the digestive functions, it should be administered after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.

NGLUVIN is a * * preparation, said to be made of Edition 1889 the gizzard of the domestic chicken (ventriculus callosus gallinaçeus). Dose gr. v.— ji Ingluvin has the remarkable property of arresting certain kinds of vomiting-notably the vomiting of pregnancy. It is a stomachic tonic, and relieves indigestion, flatulence and dyspersia.

Recent investigations have shown that Ingluvin owes its curative effects, not to any ferment corresponding to pepsin, but to a peculiar bitter principle. This result is the more satisfactory, since such an organ as the gizzard could hardly furnish the necessary quantity of digestive ferment to effect the results now known to be produced by Ingluvin.

Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be taken after meals. When the object is to

arrest the vomiting of pregnancy, it should be given before meals.

But only the successful use of this agent and the apparent sincerity of the composition as given to the public would seem to justify its mention here.